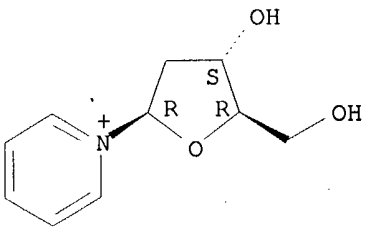
These substances associated with inventors work.

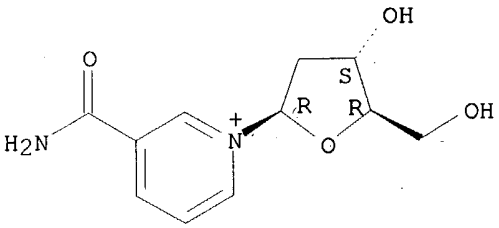
Absolute stereochemistry.



2 REFERENCES IN FILE CA (1947 TO DATE)
2 REFERENCES IN FILE CAPLUS (1947 TO DATE)

L23 ANSWER 4 OF 4 REGISTRY COPYRIGHT 2003 ACS on STN
RN **135339-72-9** REGISTRY
CN Pyridinium, 3-(aminocarbonyl)-1-(2-deoxy-.beta.-D-erythro-pentofuranosyl)-(9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF **C11 H15 N2 O4**
SR CA
LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT, USPATFULL
(*File contains numerically searchable property data)

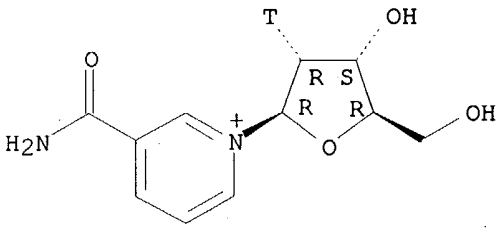
Absolute stereochemistry.



5 REFERENCES IN FILE CA (1947 TO DATE)
5 REFERENCES IN FILE CAPLUS (1947 TO DATE)

L23 ANSWER 1 OF 4 REGISTRY COPYRIGHT 2003 ACS on STN
RN **444342-73-8** REGISTRY
CN Pyridinium, 3-(aminocarbonyl)-1-[(2R)-2-deoxy-.beta.-D-erythro-pentofuranosyl-2-t]- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF **C11 H14 N2 O4 T**
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

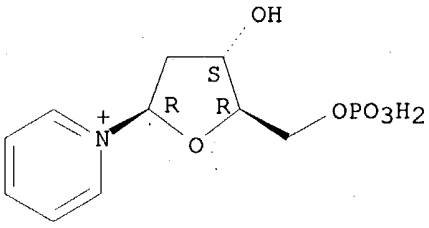
Absolute stereochemistry.



1 REFERENCES IN FILE CA (1947 TO DATE)
1 REFERENCES IN FILE CAPLUS (1947 TO DATE)

L23 ANSWER 2 OF 4 REGISTRY COPYRIGHT 2003 ACS on STN
RN **444342-71-6** REGISTRY
CN Pyridinium, 1-(2-deoxy-5-O-phosphono-.beta.-D-erythro-pentofuranosyl)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF **C10 H15 N O6 P**
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

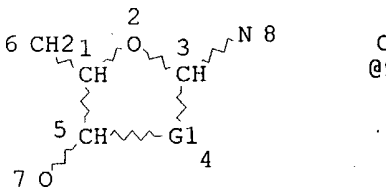
Absolute stereochemistry.



1 REFERENCES IN FILE CA (1947 TO DATE)
1 REFERENCES IN FILE CAPLUS (1947 TO DATE)

L23 ANSWER 3 OF 4 REGISTRY COPYRIGHT 2003 ACS on STN
RN **444342-70-5** REGISTRY
CN Pyridinium, 1-(2-deoxy-.beta.-D-erythro-pentofuranosyl)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF **C10 H14 N O3**
SR CA
LC STN Files: CA, CAPLUS, CASREACT, USPATFULL

```
=> d que
L5            17 SEA FILE=REGISTRY ABB=ON  PLU=ON  (119340-53-3/BI OR 135339-72-
                 9/BI OR 135622-82-1/BI OR 159501-37-8/BI OR 21740-23-8/BI OR
                 26042-64-8/BI OR 444342-68-1/BI OR 444342-69-2/BI OR 444342-70-
                 5/BI OR 444342-71-6/BI OR 444342-72-7/BI OR 444342-73-8/BI OR
                 53-84-9/BI OR 5624-35-1/BI OR 58319-92-9/BI OR 89190-48-7/BI
                 OR 98-92-0/BI)
L7               STR
```

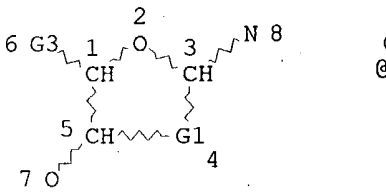


CH~G2 G2~C~G2
@9 10 11 @12 13

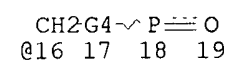
```
VAR G1=CH2/9/12
VAR G2=X/NH2/SH
NODE ATTRIBUTES:
NSPEC   IS R      AT   8
CONNECT IS E1  RC AT   7
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  13

STEREO ATTRIBUTES: NONE
L9         46056 SEA FILE=REGISTRY SSS FUL L7
L10            4 SEA FILE=REGISTRY ABB=ON  PLU=ON  L5 AND L9
L19              STR
```



CH~G2 G2~C~G2 CH2-O
@9 10 11 @12 13 @14 15




```
VAR G1=CH2/9/12
VAR G2=X/NH2/SH
VAR G3=CH3/14/16
VAR G4=C/N/O/S
NODE ATTRIBUTES:
NSPEC   IS R      AT   8
CONNECT IS E1  RC AT   7
CONNECT IS E1  RC AT  15
DEFAULT MLEVEL IS ATOM
```

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 19

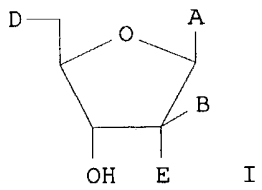
STEREO ATTRIBUTES: NONE
L20 40593 SEA FILE=REGISTRY SUB=L9 SSS FUL L19
L21 33792 SEA FILE=REGISTRY ABB=ON PLU=ON L20 AND NC=1
L22 6978 SEA FILE=REGISTRY ABB=ON PLU=ON L21 AND NRS<3
L23 4 SEA FILE=REGISTRY ABB=ON PLU=ON L10 AND L22
L32 5 SEA FILE=HCAPLUS ABB=ON PLU=ON L23

=> d ibib abs hitstr l32 1-5

L32 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2002:575048 HCAPLUS
DOCUMENT NUMBER: 137:140731
TITLE: Preparation of nucleoside analogs as inhibitors of ADP-ribosyl transferases, cyclases, and hydrolases
INVENTOR(S): Sauve, Anthony A.; Schramm, Vern L.
PATENT ASSIGNEE(S): Albert Einstein College of Medicine of Yeshiva University, USA
SOURCE: PCT Int. Appl., 48 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002059084	A2	20020801	WO 2002-US371	20020104
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2002132783	A1	20020919	US 2002-38760	20020104

PRIORITY APPLN. INFO.: US 2001-259720P P 20010104
OTHER SOURCE(S): MARPAT 137:140731
GI



I

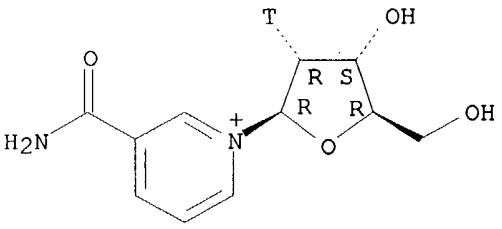
AB The present invention provides the prepn. of nucleoside analogs I as inhibitors of ADP-ribosyl transferases, cyclases, and hydrolases, wherein A is chosen from a nitrogen-, oxygen-, or sulfur-linked aryl, alkyl, cyclic, or heterocyclic group; both B and E are hydrogen, or either B or E is a halogen, amino, or thiol group and the other of B or E is hydrogen; and D is a primary alc., a hydrogen, or an oxygen, nitrogen, carbon, or sulfur linked to phosphate, a phosphoryl group, a pyrophosphoryl group, or adenosine monophosphate through a phosphodiester or carbon-, nitrogen-, or sulfur- substituted phosphodiester bridge, or to ADP through a phosphodiester or carbon-, nitrogen-, or sulfur-substitutes pyrophosphodiester bridge. The present invention also provides pharmaceutical compns. contg. the above compds., methods of using the above compds. as pharmaceuticals, and processes for prepg. the above compds. Also provided are methods for inhibiting an ADP-ribosyl transferase, ADP-ribosyl cyclase, or ADP-ribosyl hydrolase enzyme, and methods for treating a disease or condition assocd. with an ADP-ribosyl transferase, ADP-ribosyl cyclase, or ADP-ribosyl hydrolase enzyme in a subject in need of treatment thereof.

IT **444342-73-8**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(prepn. of nucleoside analogs as inhibitors of ADP-ribosyl transferases, cyclases, and hydrolases)

RN 444342-73-8 HCAPLUS

CN Pyridinium, 3-(aminocarbonyl)-1-[(2R)-2-deoxy-.beta.-D-erythro-pentofuranosyl-2-t]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

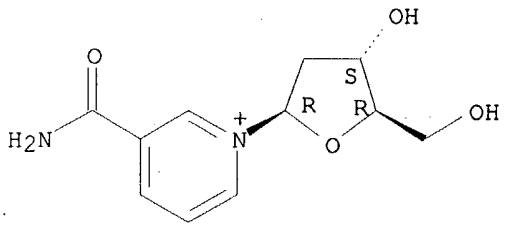


IT **135339-72-9P 444342-70-5P 444342-71-6P**
RL: IMF (Industrial manufacture); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of nucleoside analogs as inhibitors of ADP-ribosyl transferases, cyclases, and hydrolases)

RN 135339-72-9 HCAPLUS

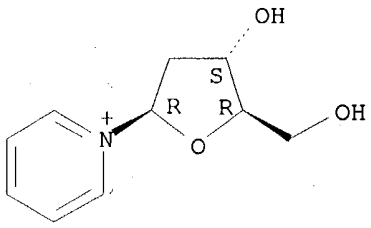
CN Pyridinium, 3-(aminocarbonyl)-1-(2-deoxy-.beta.-D-erythro-pentofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



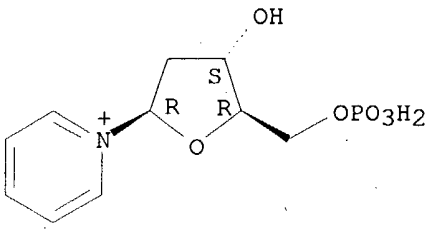
RN 444342-70-5 HCAPLUS
CN Pyridinium, 1-(2-deoxy-.beta.-D-erythro-pentofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 444342-71-6 HCAPLUS
CN Pyridinium, 1-(2-deoxy-5-O-phosphono-.beta.-D-erythro-pentofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



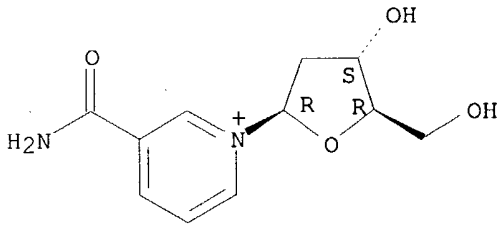
L32 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2002:426872 HCAPLUS
DOCUMENT NUMBER: 137:151677
TITLE: Mechanism-Based Inhibitors of CD38: A Mammalian Cyclic ADP-Ribose Synthetase
AUTHOR(S): Sauve, Anthony A.; Schramm, Vern L.
CORPORATE SOURCE: Department of Biochemistry, Albert Einstein College of Medicine, Bronx, NY, 10461, USA
SOURCE: Biochemistry (2002), 41(26), 8455-8463
CODEN: BICHAW; ISSN: 0006-2960
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 137:151677

AB The sol. domain of human CD38 catalyzes the conversion of NAD+ to cyclic ADP-ribose and to ADP-ribose via a common covalent intermediate. Here we establish that mechanism-based inhibitors can be produced by chem. stabilization of this intermediate. The compds. nicotinamide 2'-deoxyriboside (1), 5-methylnicotinamide 2'-deoxyriboside (2), and pyridyl 2'-deoxyriboside (3) were synthesized and evaluated as inhibitors for human CD38. The nicotinamide derivs. 1 and 2 were inhibitors of the enzyme as detd. by competitive behavior in CD38-catalyzed conversion of nicotinamide guanine dinucleotide (NGD+) to cyclic GDP-ribose. The Ki values for competitive inhibition were 1.2 and 4.0 .mu.M for 1 and 2, resp. Slow-onset characteristics of reaction progress curves indicated a second higher affinity state of these two inhibitors. Inhibitor off-rates were slow with rate consts. koff of 1.5 .times. 10-5 s-1 for 1 and 2.5 .times. 10-5 s-1 for 2. Apparent dissocn. consts. Ki(total) for 1 and 2 were calcd. to be 4.5 and 12.5 nM, resp. The similar values for koff are consistent with the hydrolysis of common enzymic intermediates formed by the reaction of 1 and 2 with the enzyme. Both form covalently attached deoxyribose groups to the catalytic site nucleophile. Chem. evidence for this intermediate is the ability of nicotinamide to rescue enzyme activity after inactivation by either 1 or 2. A covalent intermediate is also indicated by the ability of CD38 to catalyze base exchange, as obsd. by conversion of 2 to 1 in the presence of nicotinamide. The deoxynucleosides 1 and 2 demonstrate that the chem. determinants for mechanism-based inhibition of CD38 can be satisfied by nucleosides that lack the 5'-phosphate, the adenylate group, and the 2'-hydroxyl moiety. In addn., these compds. reveal the mechanism of CD38 catalysis to proceed by the formation of a covalent intermediate during normal catalytic turnover with faster substrates. The covalent 2'-deoxynucleoside inactivators of CD38 are powerful inhibitors by acting as good substrates for formation of the covalent intermediate but are poor leaving groups from the intermediate complex because hydrolytic assistance of the 2'-hydroxyl group is lacking. The removal of the adenylate nucleophile required for the cyclization reaction provides slow hydrolysis as the only exit from the covalent complex.

IT **135339-72-9P 444342-70-5P**
RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. of mechanism-based inhibitors of CD38, a mammalian cyclic ADP-ribose synthetase)

RN 135339-72-9 HCAPLUS
CN Pyridinium, 3-(aminocarbonyl)-1-(2-deoxy-.beta.-D-erythro-pentofuranosyl)- (9CI) (CA INDEX NAME)

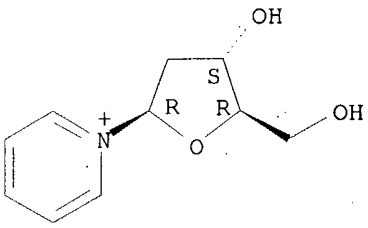
Absolute stereochemistry.



RN 444342-70-5 HCAPLUS
CN Pyridinium, 1-(2-deoxy-.beta.-D-erythro-pentofuranosyl)- (9CI) (CA INDEX

NAME)

Absolute stereochemistry.



REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L32 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1996:644067 HCAPLUS
DOCUMENT NUMBER: 126:7496
TITLE: Reactions of Charged Substrates. 6. The Methoxymethyl Carbenium Ion Problem. 1. A Semiempirical Study of the Kinetic and Thermodynamic Stabilities of Linear and Cyclic Oxo- and Thiocarbenium Ions Generated from Pyridiniums and Dimethylaniliniums
AUTHOR(S): Buckley, Neil; Oppenheimer, Norman J.
CORPORATE SOURCE: Department of Pharmaceutical Chemistry, University of California, San Francisco, CA, 94143-0446, USA
SOURCE: Journal of Organic Chemistry (1996), 61(23), 8039-8047
CODEN: JOCEAH; ISSN: 0022-3263
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

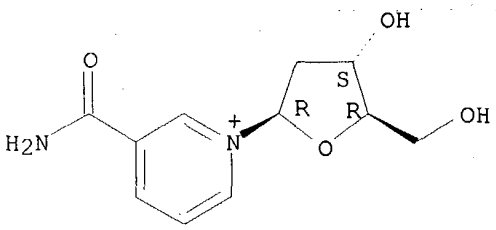
AB AM1-calcd. energy profiles for dissocn. of (methoxymethyl)pyridinium and dimethylanilinium substrates show that the methoxymethyl carbenium ion is not sufficiently stable to exist as an intermediate on the reaction coordinate for this model reaction. [(Thiomethoxy)methyl]pyridinium, however, has a distinct transition state because of the stability of the resulting ion-neutral complex. The complete potential energy surfaces for water displacement on the methoxymethyl substrate with either pyridine or dimethylaniline as the leaving group show distinct transition states and very flat surfaces for the ion-neutral complexes in which interaction of the carbenium ion with both leaving group and nucleophile is stabilizing. Secondary systems studied, including linear methoxy and thiomethoxy substrates, 5- and 6-membered cyclic oxo and thio substrates, and ribosyl-, xylopyranosyl-, and glucopyranosylpyridiniums yield ion-neutral complexes with sufficient intrinsic stability to exist as intermediates. Comparison with soln. data, primarily activation entropy and Broensted coeffs., suggests that the sugar oxocarbenium ions, either as distinct, solvent-equilibrated intermediates or elements of ion-neutral complexes, are formed by unimol. dissocn. of the resp. substrates in soln.

IT **135339-72-9**
RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)
(MO study of kinetic and thermodn. stabilities of oxo- and thiocarbenium ions from pyridiniums and dimethylaniliniums)

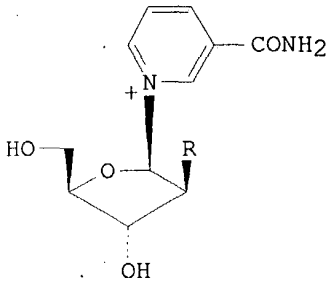
RN 135339-72-9 HCAPLUS
CN Pyridinium, 3-(aminocarbonyl)-1-(2-deoxy-.beta.-D-erythro-pentofuranosyl)-

(9CI) (CA INDEX NAME)

Absolute stereochemistry.



L32 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1994:457867 HCAPLUS
DOCUMENT NUMBER: 121:57867
TITLE: Reactions of Charged Substrates. 2. Gas-Phase Dissociation of 2'-Substituted Nicotinamide Arabinosides
AUTHOR(S): Buckley, Neil; Handlon, Anthony L.; Maltby, David; Burlingame, Alma L.; Oppenheimer, Norman J.
CORPORATE SOURCE: Department of Pharmaceutical Chemistry, University of California, San Francisco, CA, 94143-0446, USA
SOURCE: Journal of Organic Chemistry (1994), 59(13), 3609-15
CODEN: JOCEAH; ISSN: 0022-3263
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I

AB The relative abundances of ribosyl oxocarbenium ion-related cations in the gas-phase dissocn. of five 2'-substituted .beta.-nicotinamide arabinosides I (R = H, OH, NH2, NAc, F) follow the Taft equation with .sigma.F. The first-order rate consts. for the pH-independent hydrolysis of these substrates follow .rho.I, which is based on soln. acidities of the same series of compds. used to define .sigma.F in the gas phase. There is direct evidence that the NAc substrate reacts through an ion-dipole complex. Energy profiles were calcd. in AM; while there are some apparent anomalies in the method that can be sorted out easily, the activation enthalpies and energies of the various structures are consistent with the proposed mechanism. A plot of the AM1-calcd. values of .DELTA.H.thermod. for gas-phase dissocn. vs the log of the relative abundances for the resp.

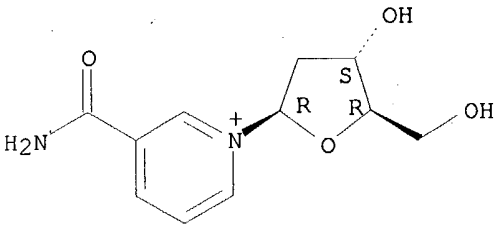
species is linear, as is a plot of the soln. .DELTA.G.thermod. and the gas-phase .DELTA.H.thermod.. Comparison of soln. and gas-phase results suggests that an ion-dipole complex is an intermediate in both phases, but that the rate-limiting step is different.

IT **135339-72-9**
RL: PROC (Process)
(gas phase dissocn. of)

RN 135339-72-9 HCAPLUS

CN Pyridinium, 3-(aminocarbonyl)-1-(2-deoxy-.beta.-D-erythro-pentofuranosyl)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



L32 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1991:583757 HCAPLUS

DOCUMENT NUMBER: 115:183757

TITLE: Substituent effects on the pH-independent hydrolysis of 2'-substituted nicotinamide arabinosides

AUTHOR(S): Handlon, Anthony L.; Oppenheimer, Norman J.

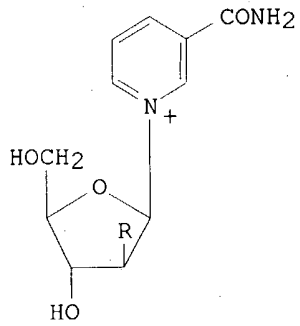
CORPORATE SOURCE: Dep. Pharm. Chem., Univ. California, San Francisco, CA, 94143-0446, USA

SOURCE: Journal of Organic Chemistry (1991), 56(17), 5009-10
CODEN: JOCEAH; ISSN: 0022-3263

DOCUMENT TYPE: Journal

LANGUAGE: English

GI



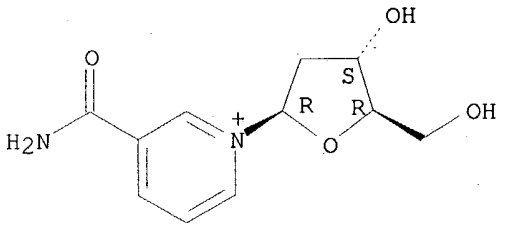
I

AB The rate consts. for the pH-independent hydrolysis of the nicotinamide .beta.-D-arabinofuranosides I (R = H, NH2, NHAc, OH, N3, F) have been

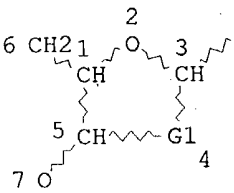
measured. The log of the rate consts. are linearly dependent on the inductive sigma const., .sigma.I, according to the equation log(k) = .rho.I..sigma.I + log(k0). The value of .rho.I is -6.7 (R = 0.99) and indicates an electron-deficient activated complex, consistent with a dissociative mechanism. The nicotinamide arabinoside system allows the direct detn. of inductive effects from carbohydrate substituents on the intrinsic stability of oxocarbocationic intermediates.

IT **135339-72-9**
RL: PRP (Properties)
(kinetics of hydrolysis of)
RN 135339-72-9 HCAPLUS
CN Pyridinium, 3-(aminocarbonyl)-1-(2-deoxy-.beta.-D-erythro-pentofuranosyl)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



```
=> d que
L7                STR
```

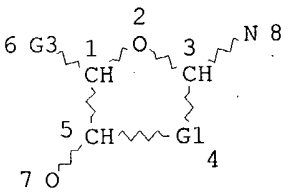


CH G2 @9 10 G2 C G2 11 @12 13

```
VAR G1=CH2/9/12
VAR G2=X/NH2/SH
NODE ATTRIBUTES:
NSPEC    IS R       AT    8
CONNECT  IS E1   RC AT    7
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  13

STEREO ATTRIBUTES: NONE
L9          46056 SEA FILE=REGISTRY SSS FUL L7
L19               STR
```



CH G2 @9 10 G2 C G2 11 @12 13 CH2 O @14 15

CH2 G4 P O @16 17 18 19

```
VAR G1=CH2/9/12
VAR G2=X/NH2/SH
VAR G3=CH3/14/16
VAR G4=C/N/O/S
NODE ATTRIBUTES:
NSPEC    IS R       AT    8
CONNECT  IS E1   RC AT    7
CONNECT  IS E1   RC AT   15
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  19

STEREO ATTRIBUTES: NONE
```

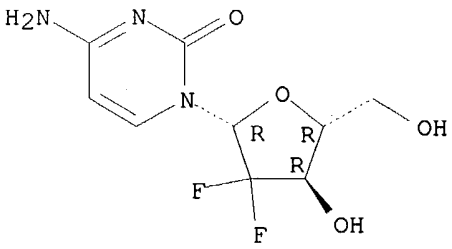
```
L20       40593 SEA FILE=REGISTRY SUB=L9 SSS FUL L19
L21       33792 SEA FILE=REGISTRY ABB=ON  PLU=ON  L20 AND NC=1
L22        6978 SEA FILE=REGISTRY ABB=ON  PLU=ON  L21 AND NRS<3
L34        3881 SEA FILE=REGISTRY ABB=ON  PLU=ON  L22 AND NR=2
L35       25270 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L34


=> d ibib abs hitstr 1-10 25260-25270

L35  ANSWER 1 OF 25270  HCAPLUS  COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER:         2003:570803  HCAPLUS
TITLE:                    Gemcitabine for the treatment of smallpox
INVENTOR(S):              Glass, John Irvin
PATENT ASSIGNEE(S):       Eli Lilly and Company, USA
SOURCE:                   PCT Int. Appl., 16 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.        KIND  DATE           APPLICATION NO.  DATE
     ----------------  ----  --------       ---------------  --------
     WO 2003059334      A2   20030724       WO 2002-US31570  20021015
         W:  AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EE, EE, ES,
             FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG,
             KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
             MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK,
             SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
             ZW, AM, AZ, BY
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
             CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
             PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
             NE, SN, TD, TG
PRIORITY APPLN. INFO.:                    US 2001-356623P  P  20011025
AB   A method of treating smallpox in a mammalian patient in need thereof
     comprises administering a therapeutically ED of gemcitabine (prepn.
     included) to the patient.
IT   INDEXING IN PROGRESS
IT   95058-81-4P, Gemcitabine
     RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
     (Uses)
        (gemcitabine for treatment of smallpox)
RN   95058-81-4  HCAPLUS
CN   Cytidine, 2'-deoxy-2',2'-difluoro- (9CI)  (CA INDEX NAME)

Absolute stereochemistry.
```



L35 ANSWER 2 OF 25270 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2003:570539 HCAPLUS
TITLE: Method for detecting single nucleotide polymorphisms in nucleic acids using RT-PCR
INVENTOR(S): Dawson, Elliott P.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 19 pp., Cont.-in-part of U.S. Ser. No. 994,119, abandoned.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003138834	A1	20030724	US 2003-346156	20030115
WO 2000011221	A1	20000302	WO 1999-US18965	19990819
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6322988	B1	20011127	US 2000-719130	20001208
US 2002164606	A1	20021107	US 2001-994119	20011126

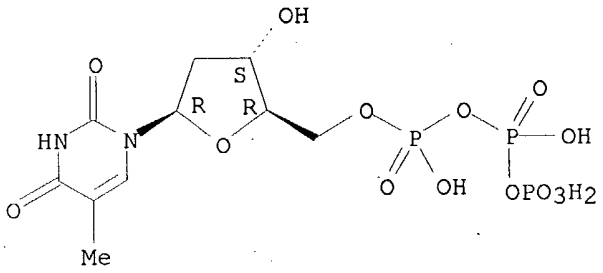
PRIORITY APPLN. INFO.:
US 1998-97136P P 19980819
WO 1999-US18965 W 19990819
US 2000-719130 A1 20001208
US 2001-994119 B2 20011126

AB A method for detg. the presence, location or identity, or a combination of these, of the nucleotides in a polynucleotide. A method for detg. the presence, location or identity, or a combination of these, of one or more than one nucleotide difference between a first polynucleotide and a second polynucleotide, or between more than two polynucleotides.

IT **365-08-2**, DTTP **1173-82-6**, DUTP **2056-98-6**, DCTP
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(method for detecting single nucleotide polymorphisms in nucleic acids using RT-PCR)

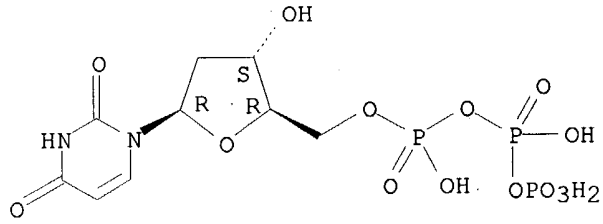
RN 365-08-2 HCAPLUS
CN Thymidine 5'-(tetrahydrogen triphosphate) (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



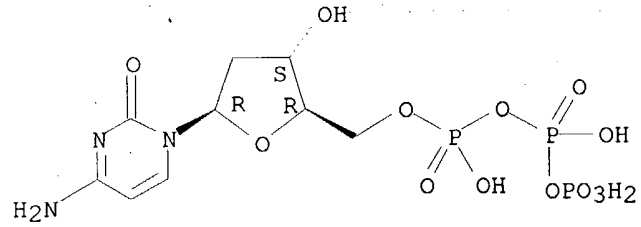
RN 1173-82-6 HCAPLUS
CN Uridine 5'-(tetrahydrogen triphosphate), 2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 2056-98-6 HCAPLUS
CN Cytidine 5'-(tetrahydrogen triphosphate), 2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L35 ANSWER 3 OF 25270 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2003:551665 HCAPLUS
TITLE: Process for producing 2'-deoxyguanosine
INVENTOR(S): Noguchi, Toshitada; Hamamoto, Tomoki; Okuyama, Kiyoshi; Shibuya, Susumu
PATENT ASSIGNEE(S): Yamasa Corporation, Japan
SOURCE: PCT Int. Appl., 31 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003057895	A1	20030717	WO 2002-JP13354	20021220

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: JP 2001-399455 A 20011228
JP 2002-212348 A 20020722

AB A process for producing 2'-deoxyguanosine is characterized by reacting at least one compd. selected from the group consisting of guanosine, GMP, and 6-substituted 2-aminopurine with 2'-deoxynucleoside in the presence of nucleoside deoxyribosyl transferase and a hydrolysis enzyme such as nucleosidase. By the process, 2'-deoxyguanosine can be efficiently synthesized from inexpensive and easily available starting materials. Since guanosine, which can be an obstacle to purifn., is hardly present in the reaction mixt., isolation and purifn. are extremely easy. Thus, the process for producing 2'-deoxyguanosine is practical.

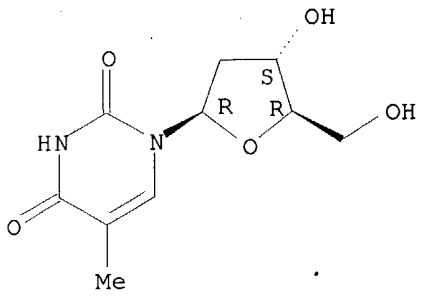
IT INDEXING IN PROGRESS

IT **50-89-5**, Thymidine
RL: BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent)
(2'-deoxyguanosine easy manuf. with nucleoside deoxyribosyl transferase and hydrolysis enzyme coupling)

RN 50-89-5 HCAPLUS

CN Thymidine (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L35 ANSWER 4 OF 25270 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2003:551379 HCAPLUS
TITLE: Combinations comprising epothilones and anti-metabolites

INVENTOR(S): Hohneker, John Arthur; Mcsheehy, Paul M. J.; Rothermel, John David
PATENT ASSIGNEE(S): Novartis Ag, Switz.; Novartis Pharma Gmbh
SOURCE: PCT Int. Appl., 22 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003057217	A1	20030717	WO 2003-EP232	20030113

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LT, LU, LV, MA, MD, MK, MN, MX, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SE, SG, SK, TJ, TM, TN, TR, TT, UA, US, UZ, VC, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR

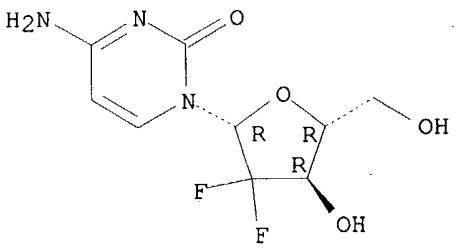
PRIORITY APPLN. INFO.: US 2002-348622P P 20020114
US 2002-416173P P 20021004

AB A combination of drugs comprises (a) an antineoplastic antimetabolite and (b) an epothilone deriv. and optionally 1 carrier and/or, and a std. anti-diarrheal for simultaneous, sep. or sequential use, in particular, for the treatment of a proliferative diseases. Further, a pharmaceutical compn. comprises such a combination. Thus, a patient with advanced renal cancer received 0.5 mg/m2 of epothilone B as a 5-min bolus infusion for 3 wk followed by 1 wk off. Starting in the second week of the epothilone treatment and at least 2 h after the treatment, capecitabine was administered orally to the patient twice daily at a dosage of 1250 mg/m2 for 2 wk followed by 1 wk off.

IT **95058-81-4**, Gemcitabine
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(combinations comprising epothilones and anti-metabolites)

RN 95058-81-4 HCAPLUS
CN Cytidine, 2'-deoxy-2',2'-difluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L35 ANSWER 5 OF 25270 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2003:551072 HCAPLUS
TITLE: Methods and kits for direct exponential amplification and sequencing of nucleic acids by addition of a second thermostable DNA polymerase
INVENTOR(S): Kilger, Christian; Paabo, Svante
PATENT ASSIGNEE(S): Germany
SOURCE: U.S. Pat. Appl. Publ., 20 pp., Cont.-in-part of U.S. Ser. No. 311,723, abandoned.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003134276	A1	20030717	US 1999-339104	19990624
DE 19653439	A1	19980702	DE 1996-19653439	19961220
US 6107032	A	20000822	US 1997-991347	19971216
US 2002192661	A1	20021219	US 2001-956342	20010920

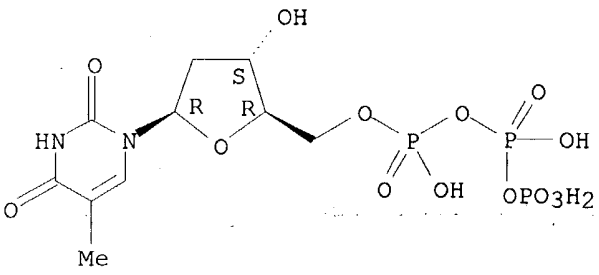
PRIORITY APPLN. INFO.: DE 1996-19653439 A 19961220
US 1997-991347 A2 19971216
US 1999-311723 B2 19990514

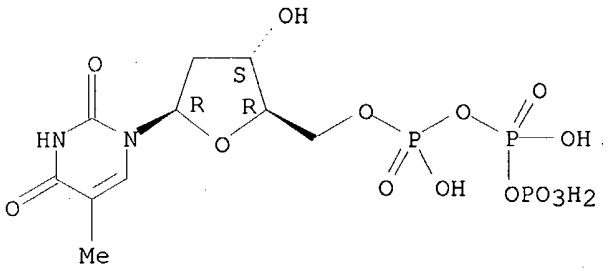
AB A method is described for the direct, exponential amplification and sequencing ("DEXAS") of a DNA mol. from a complex mixt. of nucleic acids, wherein truncated DNA mols. as well as DNA mols. of full length are synthesized simultaneously and exponentially between two positions on the said DNA mol., which initially contains a DNA mol. in a thermocycling reaction, a first primer, a second primer, a reaction buffer, a thermostable DNA polymerase, a thermostable pyrophosphatase (optionally), deoxynucleotides or derivs. thereof and a dideoxynucleotide or derivs. thereof. In a preferred embodiment of the method of the invention, direct sequencing of RNA can be performed using one polymerase having a Tabor-Richardson mutation, or a functional deriv. thereof, and reverse transcriptase activity. In a more preferred embodiment of the method of the invention, direct sequencing of RNA can be performed in one step, in one vessel.

IT **365-08-2**, DTTP **2056-98-6**, DCTP
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(methods and kits for direct exponential amplification and sequencing of DNA by addn. of second thermostable DNA polymerase)

RN 365-08-2 HCAPLUS
CN Thymidine 5'-(tetrahydrogen triphosphate) (8CI, 9CI) (CA INDEX NAME)

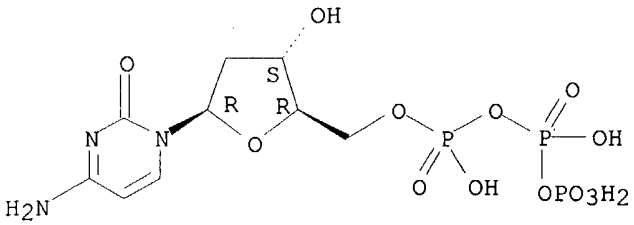
Absolute stereochemistry.





RN 2056-98-6 HCAPLUS
CN Cytidine 5'-(tetrahydrogen triphosphate), 2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L35 ANSWER 6 OF 25270 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2003:532783 HCAPLUS
TITLE: Methods and kits for multiple nucleic acid sequencing for diagnosis of diseases
INVENTOR(S): Eshleman, James R.; Murphy, Kathleen M.
PATENT ASSIGNEE(S): The Johns Hopkins University, USA
SOURCE: PCT Int. Appl., 90 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003056030	A2	20030710	WO 2002-US36075	20021108

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2001-348202P P 20011108
US 2001-332317P P 20011109

US 2002-361125P P 20020301

AB Methods for the simultaneous sequencing of multiple nucleic acid mols. are provided. Preferred methods include simultaneous single-direction sequencing of multiple genes or forward and reverse sequencing from a single gene, within a single reaction vessel. Addnl. methods of the invention include combined amplification and sequencing of nucleic acids, from a variety of sources, within a single reaction and wherein nucleic acid products also can be simultaneously analyzed, and where the reaction can be either bidirectional or long unidirectional. Addnl. methods encompass combined amplification and sequencing of multiple nucleic acid mols. simultaneously.

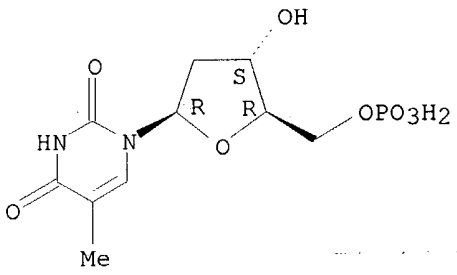
IT **25086-81-1**, polythymidine
RL: ARG (Analytical reagent use); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(tail in primer; methods and kits for multiple nucleic acid sequencing for diagnosis of diseases)

RN 25086-81-1 HCAPLUS
CN 5'-Thymidylic acid, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 365-07-1
CMF C10 H15 N2 O8 P

Absolute stereochemistry.



L35 ANSWER 7 OF 25270 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2003:532677 HCAPLUS
TITLE: Redox-labeled nucleoside analogs, enzymic redox labelling of nucleic acids, and methods for electrochemical detection of nucleic acids
INVENTOR(S): Wlassof, Wjatschesslaw; King, Garry Charles
PATENT ASSIGNEE(S): Unisearch Limited, Australia
SOURCE: PCT Int. Appl., 45 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003055898	A1	20030710	WO 2002-AU1767	20021224

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,

CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA,
UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU,
TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
MR, NE, SN, TD, TG

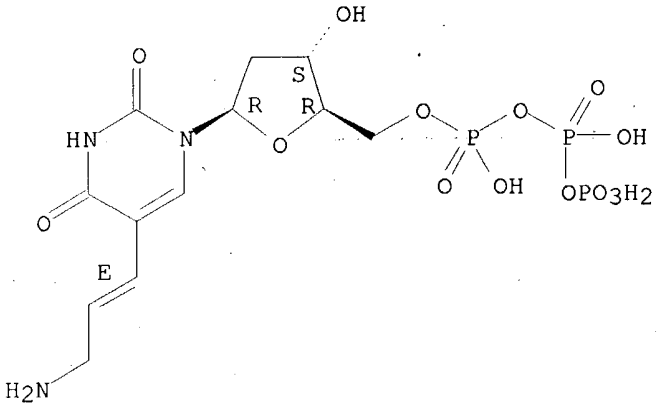
PRIORITY APPLN. INFO.: AU 2001-9752 A 20011224

AB A modified nucleoside analog P - S - B - L - R (P = 5' triphosphate or analog or deriv. thereof; S = (substituted) 5- or 6-membered sugar, sugar analog, or acyclo sugar analog, but excluding a dideoxy-sugar; B = (substituted) nitrogenous base, base analog, or deriv. thereof; L = linker group; R = (substituted) metallocene moiety, metal complex, redox-active org. moiety) is disclosed. The modified nucleoside is capable of enzymic incorporation into a nucleotide chain and allows for redox labeling of nucleotides.

IT **116840-18-7 557077-93-7**
RL: RCT (Reactant); RACT (Reactant or reagent)
(redox-labeled nucleoside analogs, enzymic redox labeling of nucleic acids, and methods for electrochem. detection of nucleic acids)

RN 116840-18-7 HCAPLUS
CN Uridine 5'-(tetrahydrogen triphosphate), 5-[(1E)-3-amino-1-propenyl]-2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 557077-93-7 HCAPLUS
CN INDEX NAME NOT YET ASSIGNED

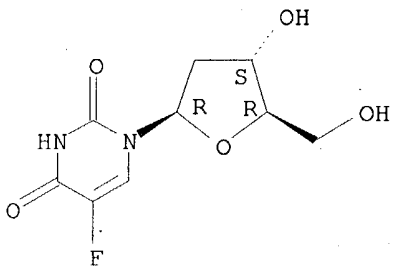
Absolute stereochemistry.

AB The title compds. [I; X = OR3, NR3R4; R1 = H, alkyl; R2 = (un)substituted cycloalkyl, Ph, (un)satd. 4-8 membered heterocyclyl contg. 1-3 heteroatoms selected from O and S; R3 = H, alkyl; R4 = (CH2)mA, (CH2)pOA; A = (un)substituted cycloalkyl, (un)satd. 4-8 membered heterocyclyl contg. 1-4 heteroatoms selected from N, O and S, etc.; or NR3R4 = (un)satd. 4-8 membered heterocyclyl contg. 0-4 heteroatoms selected from N, O and S; m, p = 0-5; q = 0-1; q + (m or p) = 1-6], useful for the inhibiting the prolylpeptidase, inducing apoptosis and treating cancer, were prepd. E.g., a 3-step synthesis of I [X = (2-thienylmethyl)amino; R1 = H; R2 = 4-(MeO2C)C6H4; q = 1], starting with thieno[3,2-d]pyrimidine-2,4-diol, was given. All exemplified compds. I were found to inhibit prolylpeptidase at or below of 10 .mu.M.

IT **50-91-9**, 5-Fluorodeoxyuridine **134-46-3**, 5-Fluorodeoxyuridine monophosphate **95058-81-4**, 2',2'-Difluorodeoxycytidine
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antiproliferative agent; prepn. of thienopyrimidines for inducing apoptosis and treating cancer in combination with other agents)

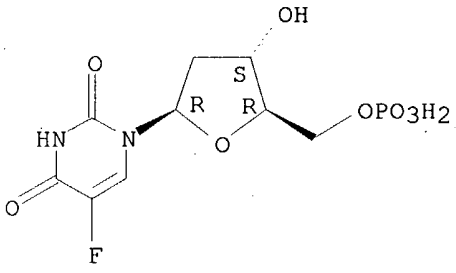
RN 50-91-9 HCAPLUS
CN Uridine, 2'-deoxy-5-fluoro- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



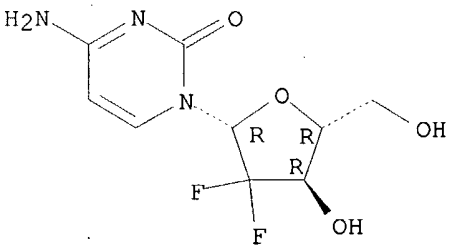
RN 134-46-3 HCAPLUS
CN 5'-Uridylic acid, 2'-deoxy-5-fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 95058-81-4 HCAPLUS
CN Cytidine, 2'-deoxy-2',2'-difluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

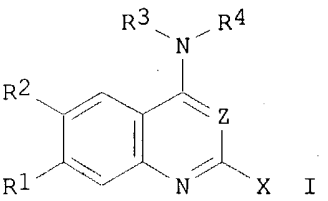
L35 ANSWER 9 OF 25270 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2003:532653 HCAPLUS
TITLE: Preparation of quinazolines and quinolines as inhibitors of prolylpeptidase, inducers of apoptosis and cancer treatment agents
INVENTOR(S): Dumas, Jacques; Sibley, Robert; Smith, Roger; Su, Ning; Chen, Yuanwei; Wood, Jill; Guernon, Leatte; Dixon, Julie; Brennan, Catherine; Boyer, Stephen
PATENT ASSIGNEE(S): Bayer Corporation, USA; et al.
SOURCE: PCT Int. Appl., 266 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003055866	A1	20030710	WO 2002-US41176	20021220

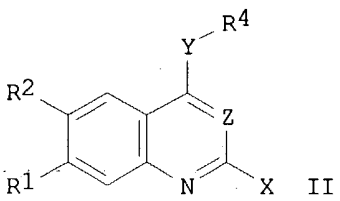
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2001-343112P P 20011221
GI



I



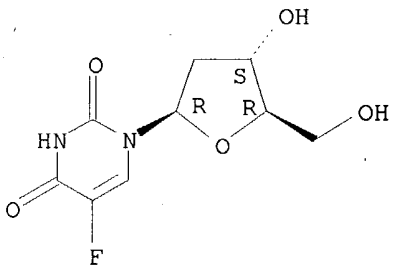
II

AB The title compds. [I or II; Z = CH, N; Y = O, S; X = OR5, NR5R6; R1, R2 = H, NH2, CN, halo, OH, NO2 (wherein R1 and R2 are both not H); R3 = H, alkyl; R4 = (CH2)yR41 (R41 = (un)substituted alkyl; y = 0-2)], useful for the inhibiting the prolyl peptidase, inducing apoptosis and treating cancer, were prepd. Thus, reacting 2,4,6-trichloroquinazoline (prepn. given) with Me 4-(aminomethyl)benzoate.HCl in the presence of AcONa in H2O followed by treating the resulting Me 4-{[(2,6-dichloro-4-quinazolinyl)amino]methyl}benzoate with piperidine afforded I [Z = N; X = piperidino; R1 = H; R2 = Cl; R3 = H; R4 = 4-(MeO2C)C6H4CH2]. Most of the exemplified compds. I and II were found to inhibit prolylpeptidase at or below of 10 .mu.M.

IT **50-91-9**, 5-Fluorodeoxyuridine **134-46-3**, 5-Fluorodeoxyuridine monophosphate **95058-81-4**, 2',2'-Difluorodeoxycytidine
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antiproliferative agent; prepn. of quinazolines and quinolines for inducing apoptosis treating cancer in combination with other agents)

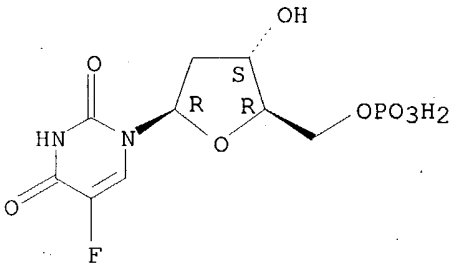
RN 50-91-9 HCAPLUS
CN Uridine, 2'-deoxy-5-fluoro- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



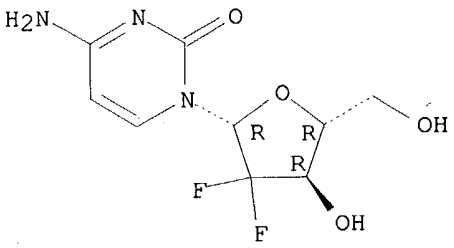
RN 134-46-3 HCAPLUS
CN 5'-Uridylic acid, 2'-deoxy-5-fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 95058-81-4 HCAPLUS
CN Cytidine, 2'-deoxy-2',2'-difluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

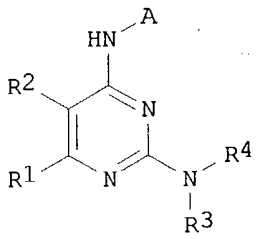
L35 ANSWER 10 OF 25270 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2003:532524 HCAPLUS
TITLE: Preparation of 2,4-diaminopyrimidines as inhibitors of prolylpeptidase, inducers of apoptosis and cancer treatment agents
INVENTOR(S): Dumas, Jacques; Dixon, Julie; Sibley, Robert; Wood, Jill
PATENT ASSIGNEE(S): Bayer Corporation, USA
SOURCE: PCT Int. Appl., 47 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003055489	A1	20030710	WO 2002-US41146	20021220

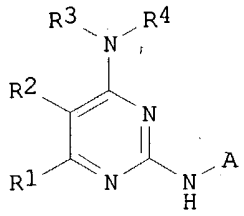
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

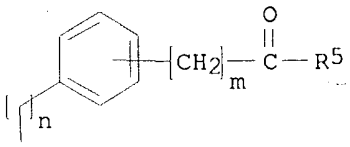
PRIORITY APPLN. INFO.: US 2001-343047P P 20011221
GI



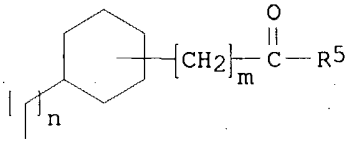
I



II



III



IV

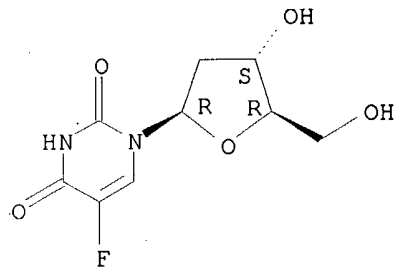
AB The title compds. [I or II; R1, R2 = H, halo, OH, etc.; R3 = H; R4 = (un)substituted alkyl, cycloalkyl, aryl, alkylaryl; or NR3R4 = (un)satd. 4-8 membered heterocyclyl which optionally contains 1-3 addnl. heteroatoms selected from N, O and S; A = III or IV; R5 = OH, OR6, NR8R9; R6 = alkyl, haloalkyl, aryl, haloaryl; R8, R9 = H, alkyl, aryl, etc.; n, m = 0-1], useful for the inhibiting prolylpeptidase, inducing apoptosis and treating cancer, were prepd. E.g., a 3-step synthesis of I [A = 4-(HO2C)C6H4CH2; R1 = H; R2 = Me; R3 = H; R4 = 2-thienylmethyl], starting from Me 4-(aminomethyl)benzoate and 2,4-dichloro-5-methylpyrimidine, was given. All exemplified compds. I were found to inhibit prolylpeptidase at or below of 10 .mu.M.

IT **50-91-9**, 5-Fluorodeoxyuridine **134-46-3**, 5-Fluorodeoxyuridine monophosphate **95058-81-4**, 2',2'-Difluorodeoxycytidine
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antiproliferative agent; prepn. of 2,4-diaminopyrimidines for inducing apoptosis treating cancer in combination with other agents)

RN 50-91-9 HCAPLUS

CN Uridine, 2'-deoxy-5-fluoro- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

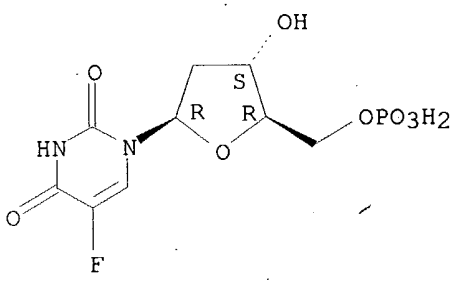
Absolute stereochemistry.



RN 134-46-3 HCAPLUS

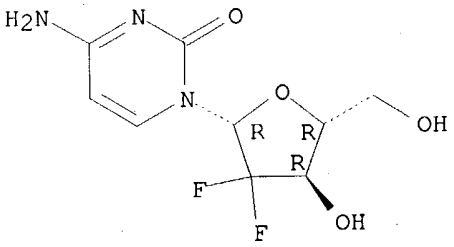
CN 5'-Uridylic acid, 2'-deoxy-5-fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 95058-81-4 HCAPLUS
CN Cytidine, 2'-deoxy-2',2'-difluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L35 ANSWER 25260 OF 25270 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1952:42193 HCAPLUS
DOCUMENT NUMBER: 46:42193
ORIGINAL REFERENCE NO.: 46:7052a-c
TITLE: Scission of desoxyribonucleic acid with lead hydroxide and isolation of desoxyriboside by continuous counter-current partition
AUTHOR(S): Weygand, Friedrich; Wacker, Adolf; Dellweg, Hanswerner
CORPORATE SOURCE: Univ. Heidelberg, Germany
SOURCE: Zeitschrift fuer Naturforschung (1951), 6b, 130-4
CODEN: ZNTFA2; ISSN: 0372-9516
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB Desoxyribonucleic acid (I) from herring sperm was split with Pb hydroxide (II) in aq. soln. at 100.degree. (initial pH 7.3, 45 hrs.). Fresh II was added as the reaction progressed to maintain the pH 7.2.fwdarw.7.4. The concd. filtrate was partitioned 14 days in a 100-element continuous countercurrent app. (cf. C.A. 44, 7096e) between BuOH and water. From 25 g. I were obtained 510 mg. thymidine (III), 300 mg. guanine desoxyriboside (IV), 65 mg. adenine desoxyriboside (V), 60 mg. cytosine desoxyriboside (VI), and a few mg. of uracil desoxyriboside (VII). The desoxyribosides were partially sepd. chromatographically (H2O-satd. BuOH). Elements 1-18 contained non-hydrolyzed nucleotide (Rf 0.02). Elements 23-35 were

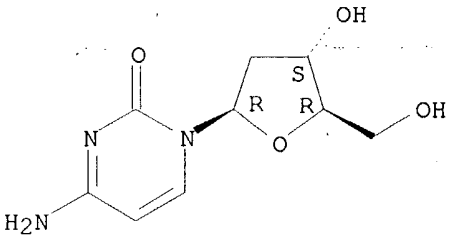
primarily VI (Rf 0.22). Elements 36-46 contained small amts. of VI and IV, not recovered. Elements 47-63 contained IV (Rf 0.16) and VII (Rf 0.34). Elements 64-70 contained IV, III, and a substance with Rf 0.34 (VII?). Elements 71-89 contained III and IV. Elements 80-100 contained III. Criteria for the identification of the different substances are given.

IT **951-77-9**, Cytidine, deoxy- **951-78-0**, Uridine, 2'-deoxy-
(prepn. of)

RN 951-77-9 HCAPLUS

CN Cytidine, 2'-deoxy- (8CI, 9CI) (CA INDEX NAME)

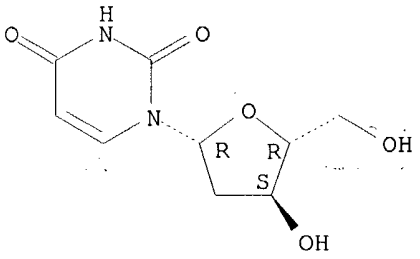
Absolute stereochemistry. Rotation (+).



RN 951-78-0 HCAPLUS

CN Uridine, 2'-deoxy- (6CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



L35 ANSWER 25261 OF 25270 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1952:8859 HCAPLUS

DOCUMENT NUMBER: 46:8859

ORIGINAL REFERENCE NO.: 46:1612i,1613a

TITLE: Application of the Dische diphenylamine reaction to pyrimidine desoxynucleosides

AUTHOR(S): Brady, T. G.; McEvoy-Bowe, E.

CORPORATE SOURCE: Univ. Coll., Dublin, Ire.

SOURCE: Nature (London, United Kingdom) (1951), 168, 299-300
CODEN: NATUAS; ISSN: 0028-0836

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

AB By first treating thymidine and desoxycytidine with bromine and by heating the reactants for 30 min. instead of the usual 10 min., sufficient color develops with the Dische diphenylamine reaction (C.A. 24, 1879) to make it practical for their detn. This confirms the presence of a 2-desoxysugar

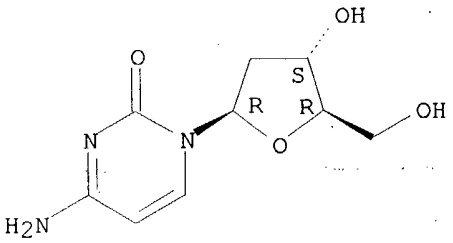
residue in thymidine. Bromination seems to cleave the glycoside-N linkage of both purine and pyrimidine desoxynucleosides in thymonucleic acids.

IT **951-77-9**, Cytidine, deoxy-
(Dische diphenylamine reaction with)

RN 951-77-9 HCAPLUS

CN Cytidine, 2'-deoxy- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L35 ANSWER 25262 OF 25270 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1952:752 HCAPLUS

DOCUMENT NUMBER: 46:752

ORIGINAL REFERENCE NO.: 46:154a-c

TITLE: Some chemical properties of desoxyribose nucleosides

AUTHOR(S): Manson, L. A.; Lampen, J. O.

CORPORATE SOURCE: Washington Univ., St. Louis, MO

SOURCE: Journal of Biological Chemistry (1951), 191, 87-93
CODEN: JBCHA3; ISSN: 0021-9258

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

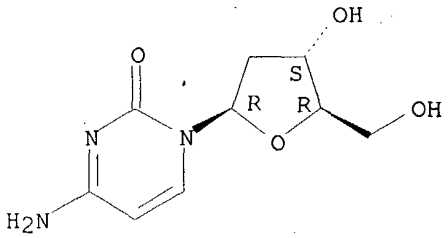
AB Thymus nucleic acid (125 g.) hydrolyzed by an intestinal nucleotidase prepn. yielded 4.9 g. hypoxanthine desoxyriboside, colorless needles which softened at 218.degree. (uncor.), solidified, then decompd. on further heating; 2.7 g. thymidine, colorless needles from iso-PrOH m. 184.5-5.5.degree. (uncor.); and 3.6 g. cytosine desoxyriboside (I) picrate, darkened at 191.degree. and decompd. (from EtOH). The picrate in 15 cc. water treated with 0.3 cc. 50% KOH, the soln. chilled, filtered, and the filtrate and washings passed through Amberlite IR-4B yielded I, m. 206-8.degree. (uncor.). In the cysteine-H2SO4 test purine-bound desoxyribose in desoxyribonucleic acid reacts quantitatively, thymine-bound desoxyribose reacts partially, and cytosine-bound desoxyribose does not react under the specified conditions. The desoxyribose nucleosides are resistant to metaperiodate, whereas D-2-desoxyribose consumed 5 moles/mole sugar in 24 hrs. Conclusion: The lactal ring in the desoxyribose nucleosides is furanoid.

IT **951-77-9**, Cytidine, deoxy-
(prepn. of)

RN 951-77-9 HCAPLUS

CN Cytidine, 2'-deoxy- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

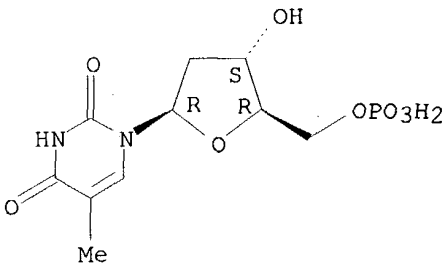


L35 ANSWER 25263 OF 25270 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1951:27364 HCAPLUS
DOCUMENT NUMBER: 45:27364
ORIGINAL REFERENCE NO.: 45:4783c-d
TITLE: Utilization of desoxyribosides in the synthesis of polynucleotides
AUTHOR(S): Reichard, Peter; Estborn, Bengt
CORPORATE SOURCE: Karolinska Inst., Stockholm
SOURCE: Journal of Biological Chemistry (1951), 188, 839-46
CODEN: JBCHA3; ISSN: 0021-9258
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB cf. C.A. 44, 10748a. N15-Desoxyribosides of cytosine, thymine, and hypoxanthine were prepd. biologically by growing Escherichia coli on a synthetic medium contg. N15H4 ion and isolating the desoxyribosides from the N15-desoxyribonucleic acid (I) formed. The desoxyribosides were injected into rats and their utilization studied by N15 analysis of purines and pyrimidines from I and ribonucleic acid. Desoxycytidine is utilized for the synthesis of thymine and cytosine in I, and thymidine for the synthesis of thymine in I. Desoxyhypoxanthosine is not utilized for the synthesis of any purines or pyrimidines in polynucleotides.

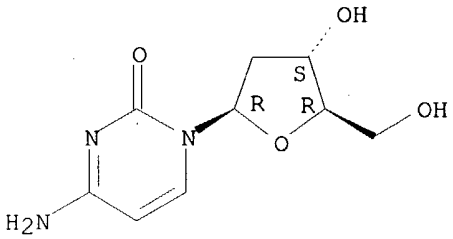
IT **365-07-1**, Thymidine, 5'-monophosphate
(in polynucleotide formation)
RN 365-07-1 HCAPLUS
CN 5'-Thymidylic acid (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



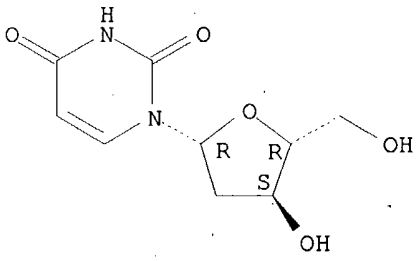
IT **951-77-9**, Cytidine, deoxy-
(utilization in synthesis of polynucleotides)
RN 951-77-9 HCAPLUS
CN Cytidine, 2'-deoxy- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L35 ANSWER 25264 OF 25270 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1951:11118 HCAPLUS
DOCUMENT NUMBER: 45:11118
ORIGINAL REFERENCE NO.: 45:1959b-c
TITLE: Uracil desoxyriboside
AUTHOR(S): Dekker, C. A.; Todd, A. R.
CORPORATE SOURCE: Univ. Chem. Lab., Cambridge, UK
SOURCE: Nature (London, United Kingdom) (1950), 166, 557-8
CODEN: NATUAS; ISSN: 0028-0836
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB The new compd. was obtained from 2 com. samples of desoxyribonucleic acid, and appeared to have been formed from cytosine desoxyriboside in the course of prepn. of the com. product or through bacterial contamination by an organism possessing an enzyme capable of deaminating cytosine desoxyriboside. The uracil desoxyriboside crystd. from 95% EtOH as needles or clusters of small needles, C9H12N2O5, m. 163.degree., [.alpha.]22D 50.degree. (.+-. 2.degree.) (c 1.1, N NaOH).
IT **951-78-0**, Uridine, 2'-deoxy-
(prepn. of)
RN 951-78-0 HCAPLUS
CN Uridine, 2'-deoxy- (6CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



L35 ANSWER 25265 OF 25270 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1951:11117 HCAPLUS
DOCUMENT NUMBER: 45:11117
ORIGINAL REFERENCE NO.: 45:1959a-b
TITLE: New derivatives of 5,5-diphenylhydantoin. II
AUTHOR(S): Hoffmann, Charles

SOURCE: Bulletin de la Societe Chimique de France (1950) 659-60
CODEN: BSCFAS; ISSN: 0037-8968
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

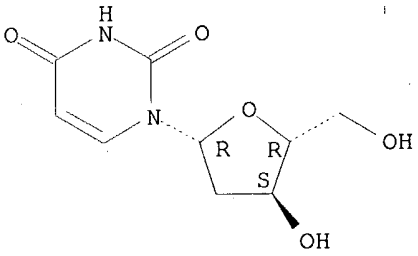
AB cf. C.A. 44, 6819a. 5,5-Diphenylhydantoin (I) derivs. sol. in H2O in the range pH 6-8 were desired for subcutaneous injection. Refluxing 10 g. I in 250 ml. H2O contg. 1.6 g. NaOH to which had been added 10 g. ClCH2CO2H in 50 ml. H2O (neutralized with 10 g. NaHCO3) for 4 hrs., cooling, satg. with CO2, filtering to remove unreacted I, and acidifying with CO2 gave 7 g. 5,5-diphenyl-3-hydantoinacetic acid, m. 285.degree. (from EtOH). In small portions 5 g. NH2C(:NH)NH2.HCNS, then 1.5 g. Bz2, were added to 1.5 g. Na in 100 ml. EtOH; refluxing 30 min., dilg. with 100 ml. H2O, and cooling gave 4.55 g. 5,5-diphenyl-2-iminohydantoin, m. above 290.degree.; HCl salt, m 220.degree.; Ac deriv., m. 275.degree..

IT **951-78-0**, Uridine, 2'-deoxy-
(prepn. of)

RN 951-78-0 HCAPLUS

CN Uridine, 2'-deoxy- (6CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



L35 ANSWER 25266 OF 25270 HCAPLUS COPYRIGHT 2003 ACS on STN

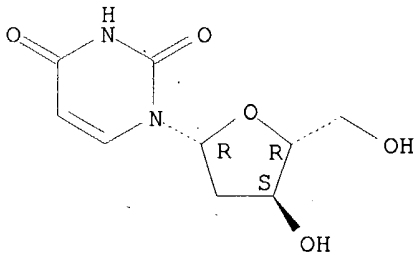
ACCESSION NUMBER: 1951:6355 HCAPLUS
DOCUMENT NUMBER: 45:6355
ORIGINAL REFERENCE NO.: 45:1170f-i
TITLE: Exchange between free purines and pyrimidines and the aglucones of desoxyribosyl purines and desoxyribosyl pyrimidines
AUTHOR(S): MacNutt, Walter S.
CORPORATE SOURCE: Univ., Copenhagen
SOURCE: Nature (London, United Kingdom) (1950), 166, 444
CODEN: NATUAS; ISSN: 0028-0836
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB An exchange is demonstrated between purines and pyrimidines, linked as aglucones to the desoxyribosyl group, and free purines and pyrimidines added to the enzyme system. The mechanism apparently does not involve desoxyribosephosphate as an intermediate, since its addn. to the system causes no significant synthesis of desoxyribosides. Thymine, uracil, and 5-methylcytosine can exchange with purine desoxyribosides to give pyrimidine desoxyribosides. The exchange with uracil to form uracildesoxyriboside suggests for the first time a possible biol. role for this compd. Most purines (except uric acid) and 4-amino-5-imidazolecarboxamide react with pyrimidine desoxyribosides to form

typically acid-labile purine desoxyribosides. Adenine and xanthine replace uracil to form the corresponding purine compds., the latter having an Rf value of 0.06, the lowest known for any compd. of this series. For this study an arbitrary system was adopted which consisted of 2 parts: (1) a crude enzyme prepn. from Lactobacillus helveticus; (2) measurement of the quantity of desoxyriboside (synthesized or destroyed) by microbiol. assay with Thermobacterium acidophilus R26. The enzyme prepn. contained neither adenine- nor cytosine-desoxyriboside deaminase. Individual desoxyribosides were sepd. by chromatography on paper, with BuOH-H2O-NH3 or BuOH-H2O-HOAc systems. Their positions were found under ultraviolet light and the amts. detd. after cutting out the areas of paper and extg. with H2O.

IT **951-78-0**, Uridine, 2'-deoxy-
(prepn. of)
RN 951-78-0 HCAPLUS
CN Uridine, 2'-deoxy- (6CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



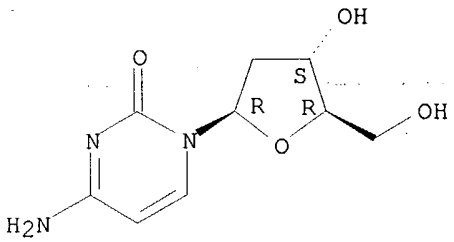
L35 ANSWER 25267 OF 25270 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1951:6043 HCAPLUS
DOCUMENT NUMBER: 45:6043
ORIGINAL REFERENCE NO.: 45:1037i,1038a-c
TITLE: Desoxyribonucleosides and related compounds. II. Proof of the furanose structure of the natural 2-desoxyribonucleosides
AUTHOR(S): Brown, D. M.; Lythgoe, B.
CORPORATE SOURCE: Univ. of Cambridge, UK
SOURCE: Journal of the Chemical Society, Abstracts (1950) 1990-91
CODEN: JCSAAZ; ISSN: 0590-9791
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB cf. C.A. 44, 2932d. The following were prepd. from purified herring-sperm desoxynucleic acid (I) by methods previously described by others: guanine desoxyriboside (II), C10H13O4N5.H2O, needles, and hypoxoxanthine analog (II), C10H12O4N4, microneedles. Chromatography on Al2O3 gave a means of sepg. the pyrimidine nucleoside-contg. fraction, giving thymidine (IV), m. 186.degree. (from MeOH-Et2O), and cytosine desoxyriboside (V), m. 210.degree. (from MeOH-Et2O). A rapid and sharp sepn. of IV and V from the hydrolyzate of I in H2O was effected with the cation-exchange resin "Zeo-Karb 215". IV passed through the column, whereas V was sorbed and subsequently eluted with 2% aq. pyridine. Provided the natural desoxynucleosides have a furanose structure, they should strongly resist NaIO4 oxidation. This proved to be the case with IV and V (which consumed

< 0.1 mole NaIO4/mole glycoside, after which the reaction ceased). The purine desoxyribosides also showed a very slight uptake of NaIO4 within 20 hrs. but continued to consume NaIO4 gradually. Within 142 hrs., III took up 2.4 moles NaIO4 and II consumed about 0.48 mole NaIO4 in 408 hrs. This autocatalytic reaction is discussed.

IT **951-77-9**, Cytidine, deoxy-
(sepn. from thymidine)
RN 951-77-9 HCAPLUS
CN Cytidine, 2'-deoxy- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



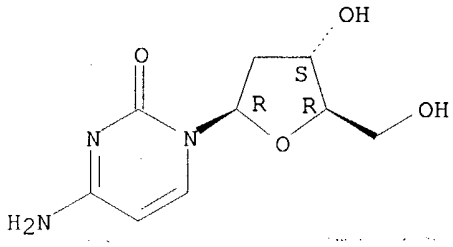
L35 ANSWER 25268 OF 25270 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1950:38399 HCAPLUS
DOCUMENT NUMBER: 44:38399
ORIGINAL REFERENCE NO.: 44:7381i,7382a-c
TITLE: Inhibition of growth of Lactobacillus leichmannii and Thermobacterium acidophilus R26 by 5-bromouracil
AUTHOR(S): Weygand, Friedrich; Wacker, Adolf
CORPORATE SOURCE: Univ., Heidelberg, Germany
SOURCE: Zeitschrift fuer Naturforschung (1950), 5b, 46-7
CODEN: ZNTFA2; ISSN: 0372-9516
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB Vitamin B12 (or desoxyriboside) is a growth factor for L. leichmannii. When 2-4 .gamma. of 5-bromouracil (I) was added per ml. of medium, about 50% inhibition of growth was obtained in the presence of 0.3 m.gamma./ml. of vitamin B12, and total inhibition with 33 .gamma./ml. Thymine or thymidine competitively removed the inhibitory effect of I after 24-hrs. incubation; 49 .gamma./ml. of thymine or 6.6 .gamma./ml. of thymidine permitted half max. growth in the presence of 33 .gamma./ml. of I. Vitamin B12 (3.3 m.gamma./ml.) as well as the desoxyribosides of cytosine, guanine, and hypoxanthine (6.6 or 13.3 .gamma./ml.) did not remove the inhibition of 2 .gamma./ml. of I; cytosine desoxyriboside sometimes did after 72 hrs. The addn. of folic acid (0.2 .gamma./ml.) or vitamin B12 (3.3 m.gamma./ml.) did not strengthen the inhibition-removal effect of thymine. Quant. relations as described above were found for Thermobacterium acidophilus R26, except that guanine or hypoxanthine desoxyribosides (3.3 .gamma./ml.) were used as growth factors instead of vitamin B12. The growth of both bacteria was also inhibited by 5-chlorouracil; the quant. relations were the same as for I. The functions of folic acid, thymine, vitamin B12, and thymidine are interrelated. The NaCl and Fe citrate concns. of the medium used were previously reported (C.A. 43, 8441d) 10 times too high.

IT **951-77-9**, Cytidine, deoxy-

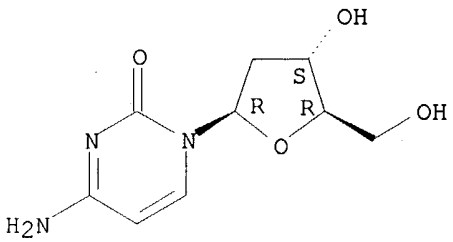
(effect on growth-inhibiting action of 5-bromouracil)
RN 951-77-9 HCAPLUS
CN Cytidine, 2'-deoxy- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L35 ANSWER 25269 OF 25270 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1949:22965 HCAPLUS
DOCUMENT NUMBER: 43:22965
ORIGINAL REFERENCE NO.: 43:4334d-e
TITLE: The nonspecificity of thymidine as a growth factor for lactic acid bacteria
AUTHOR(S): Kitay, Estelle; McNutt, Walter S.; Snell, Esmond E.
SOURCE: Journal of Biological Chemistry (1949), 177, 993-4
CODEN: JBCHA3; ISSN: 0021-9258
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB For 11 out of 13 organisms, thymidine (I) hypoxanthine desoxyriboside, and cytosine desoxyriboside were equiv. in vitamin B12 activity. For many, desoxyribonucleic acid and refined liver ext. were active. Ascorbic acid was only rarely effective. Lactobacillus delbrueckii 730 was unique in specifically requiring I.
IT **951-77-9**, Cytidine, deoxy-
(vitamin B12 activity of, for lactic acid bacteria)
RN 951-77-9 HCAPLUS
CN Cytidine, 2'-deoxy- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L35 ANSWER 25270 OF 25270 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1949:888 HCAPLUS
DOCUMENT NUMBER: 43:888
ORIGINAL REFERENCE NO.: 43:270b-c

TITLE: Thymine desoxyriboside as an essential growth factor for lactic acid bacteria
AUTHOR(S): Snell, Esmond E.; Kitay, Estelle; McNutt, Walter S.
SOURCE: Journal of Biological Chemistry (1948), 175, 473-4
CODEN: JBCHA3; ISSN: 0021-9258
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

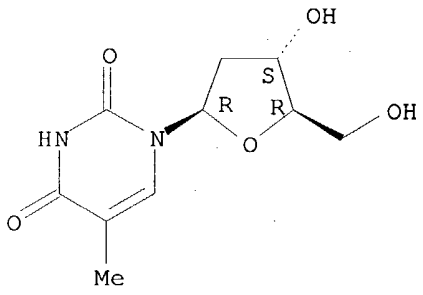
AB cf. C.A. 42, 7832g. Thymine desoxyriboside (I) is an essential growth factor for 2 strains of Lactobacillus leichmannii and for Leuconostoc citrovorum. A widespread requirement for I among lactic acid bacteria is indicated.

IT **50-89-5**, Thymine, deoxyriboside
(as growth factor for lactic acid bacteria)

RN 50-89-5 HCAPLUS

CN Thymidine (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



US 100700710NP1

Creation date: 12-01-2004
Indexing Officer: MMOHAMMED1 - MENEN MOHAMMED
Team: OIPEScanning
Dossier: 10070071

Legal Date: 12-01-2004

No.	Doccode	Number of pages
1	CTFR	8
2	FWCLM	1
3	SRFW	1

Total number of pages: 10

Remarks:

Order of re-scan issued on .....